

# wholeSEM Fellowship Programme - 2<sup>nd</sup> Call

## **Summary**

The Whole Systems Energy Modelling Consortium is a major UK research centre whose goal is to advance the state-of the-art in UK energy modelling (see <a href="www.wholeSEM.ac.uk">www.wholeSEM.ac.uk</a>). This is the 2<sup>nd</sup> Call for wholeSEM Fellows. A decision on successful candidates will be made on 5th Nov 2014, with successful applicants having flexibility as to when they begin their Fellowship. wholeSEM offers financial support to Fellows to cover travel, accommodation and subsistence costs. A typical Fellowship would last 3 months.

The deadline for the second Call for wholeSEM Fellows is 0900 GMT on Monday 27th October 2014. Please apply via email to the wholeSEM Centre Manager – Liz Milner (elizabeth.milner@ucl.ac.uk) with a cover note (1 page), a short research proposal (2 pages), a brief CV (1-2 pages). Full details are at <a href="http://www.wholesem.ac.uk/fellowship">http://www.wholesem.ac.uk/fellowship</a>

#### **About the Fellowship Programme**

In March 2014 wholeSEM launched an innovative bi-directional Fellowship Programme to enable UK and international experts in academic, policy and industrial positions to work with the wholeSEM consortium. Fellows can come and work with the wholeSEM team at one of four UK institutions, or other institutions can host a member of the wholeSEM team. Details are at http://www.wholesem.ac.uk/fellowship

Research proposals must be developed collaboratively with researchers from wholeSEM to fit in with the interests and requirements of the project. We encourage potential applicants to make contact with wholeSEM research groups and researchers they wish to work with (see <a href="https://www.wholesem.ac.uk/people/consortium">www.wholesem.ac.uk/people/consortium</a>).

We expect to have 12 wholeSEM Fellows over the lifetime of the consortium (through to June 2017). In the first call for the wholeSEM Fellowship, three Fellowship were awarded. Details are at: <a href="http://www.wholesem.ac.uk/people/fellows">http://www.wholesem.ac.uk/people/fellows</a>

## **Terms of Reference**

## 1. Eligibility

- The wholeSEM fellowship programme is a bilateral programme. This Call for Fellows is for
  research and technical personnel in other universities, research institutes, governmental
  organisations and business to come to work with one of the four partner university here in the
  UK (University of Cambridge, University of Surrey, Imperial College London, University College
  London)
- Applicants must hold a postgraduate degree in economics, engineering, operations research, mathematics, social sciences or other energy-related field. Exceptions will be made for candidates with substantial policy or industrial experience
- Applicants must be able to demonstrate experience in building and applying energy models in research, policy or decision making capacities
- Applicants must demonstrate an excellent working knowledge of the English language

#### 2. Selection

- The wholeSEM fellowship programme will hold successive Calls for Fellows through the lifetime of the consortium (2013-2017)
  - o The second Call for Fellows submission date is 0900 (GMT) 27<sup>th</sup> October 2014
- Applications will be assessed by the wholeSEM Management Board and will be ranked by:
  - Calibre of the proposed research project as a wholeSEM Fellow;
  - o Evidence of prior interaction with the wholeSEM consortium members
  - Specialism in quantitative or qualitative analysis (economics, engineering, science, social science) applicable to energy modelling;
  - Deep interest in the possible evolution of national and international energy; systems in ways that reduce carbon emissions and increase energy security;
  - o Evidence of successful completion of quantitative research projects;
  - Evidence of communication to policy and other decision makers of quantitative research insights.

### 3. Operation

- Fellowships would usually be expected to last between 6 weeks to 6 months, with a typical stay of 3 months.
- wholeSEM can offer financial support to Fellows to cover travel, accommodation and subsistence costs. In exceptional circumstances we can also contribute to salary costs.
  - Each fellowship package to be negotiated in collaboration with the Fellow's current employer and with the host institution
  - Each Fellowship will be subject to a limit of financial support
  - o Fellows are responsible for arranging their own travel and housing
- Offers of Fellowships are subject to successful candidates securing a valid visa, if required, from the <u>UK Border Agency</u>. Fellows are responsible for their own visa arrangements
- 4. Reporting, monitoring and evaluations
  - A member of staff will be nominated as a point of contact to coordinate the linkages between the Fellow and the host organisation;
  - The Fellow must produce an 'End of Fellowship' report detailing their activities and achievements during their Fellowship;
  - The Fellow must deliver appropriate outputs, as specified in their research proposal (for example a new data set, a modelling enhancement, a journal paper);
  - The Fellow must acknowledge the support of wholeSEM and EPSRC in any publications resulting from their Fellowship.

## **How to Apply**

The deadline for the second Call for wholeSEM Fellows is **0900 GMT on Monday 27**<sup>th</sup> **October 2014**. Please send via email to the wholeSEM Centre Manager – Liz Milner (elizabeth.milner@ucl.ac.uk)

- a brief CV (1-2 sides of A4)
- a short research proposal (not more than 2 sides of A4), giving:
  - the title of your project
  - the area of interest
  - its applicability to policy and decision making in the UK and other countries
  - o which modelling methods and tools it would use
  - what outputs (e.g., a new data set, a modelling enhancement, a journal paper) it would produce;
- a cover note (not more than 1 side of A4), detailing:
  - o what is the intended UK (or international) host organisation;
  - o an anticipated timeframe (start, end and duration) to undertake the Fellowship;
  - an estimated budget for expenditure on travel, accommodation and subsistence, and, if required, salary costs during the Fellowship.

Process enquiries should be made to the wholeSEM Centre Manager – Liz Milner (elizabeth.milner@ucl.ac.uk)

Research enquiries can be made to the Principal Investigator of wholeSEM, Professor Neil Strachan (n.strachan@ucl.ac.uk)

#### About wholeSEM

The Whole Systems Energy Modelling Consortium is a major UK research centre whose goal is to advance the state-of the-art in UK energy modelling (see <a href="https://www.wholeSEM.ac.uk">www.wholeSEM.ac.uk</a>). Energy models provide essential quantitative insights into the 21st Century challenges of decarbonisation, energy security, energy equity, and cost-effectiveness.

The whole systems energy modelling consortium (wholeSEM) is a ground breaking UK initiative to develop, integrate and apply state-of-the-art energy models. The consortium will employ extensive integration mechanisms to link and apply interdisciplinary models to key energy policy problems, with substantive bilateral engagement with stakeholders in academia, government and industry.

wholeSEM is funded by EPSRC for four years (though June 2017). The consortium is led by University College London and consists of Imperial College London, the University of Cambridge and the University of Surrey. The four partner institutions have the following modelling specialities:

- University College London: Energy systems and technology modelling (TIMES framework) linking to a range of modelling approaches, including macro-economic, integrated assessment, and behavioural models of the transport and buildings sectors
- Imperial College London: Power system modelling, and detailed spatial and temporal approaches to new infrastructures
- University of Cambridge: Resource flows, the interactions between energy, land, water and critical materials
- University of Surrey: Modelling social practices, agent based modelling of behaviour

#### Aims of wholeSEM

Through the development of critical energy modelling capacity, the consortium will make a substantial and internationally leading research impact. Prioritising on key modelling areas of high relevance to energy systems, innovative interdisciplinary analyses will generate a range of new, forward looking insights. Our key aims are:

- 1. To undertake internationally cutting edge research on prioritised energy system topics;
- 2. Integrate whole energy systems modelling approaches across disciplinary boundaries;
- 3. Build bilateral engagement mechanisms with the wider UK energy systems community in academia, government and industry.